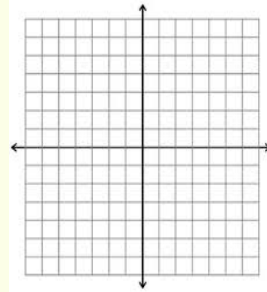


### Alg. 2 Warm Up # 3-5

1. Make a table and graph, then completely describe the function:

$$f(x) = \sqrt{x+5}$$

x	y



2. Find the intercepts and vertex of the function:

$$f(x) = x^2 - 2x - 15$$

HW Questions:

$$f(x) = \frac{1}{x-2}$$

describe  
vertical asymptote  
at  $x=2$

horizontal asymptote  
at  $y=0$

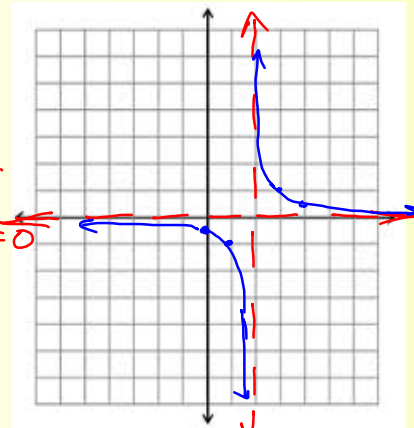
y-int:  $(0, -\frac{1}{2})$

Not continuous

Curves

hyperbola

x	y
0	$-\frac{1}{2}$
1	-1
2	undef.
3	1
4	$\frac{1}{2}$



$x=2$

dom:  $\mathbb{R} \quad x \neq 2$

range:  $y \neq 0$

Symmetry @  $y = x - 2$   
 $y = -x + 2$

$$5b) \frac{18}{x} - (x+2) = 2x + 13$$

$$\frac{18}{x} - x - 2 = 2x + 13$$

$$x \cdot \frac{18}{x} = (3x + 15)x$$

$$18 = 3x^2 + 15x - 18$$

$$1 \cdot 6$$

$$\cancel{2 \cdot 3}$$

$$0 = 3(x^2 + 5x - 6)$$

$$0 = 3(x-1)(x+6)$$

$$\boxed{x = 1, -6}$$

$$7c) f(x) = 3 \rightarrow$$

$$3 = \frac{1}{x-5} + 2$$

$$4b) \sqrt{(x+3)^2} = \pm \sqrt{16}$$

$$x+3 = \pm 4$$

$$-3 \quad -3$$

$$\boxed{x = 1, -7}$$

$$\frac{1}{1} = \frac{1}{x-5}$$

$$x-5 = 1$$

$$\boxed{x = 6}$$

$$4c) 6x^2 - 3x = 0$$

$$3x(2x-1) = 0$$

$$3x = 0$$

$$x = 0$$

$$2x-1 = 0$$

$$2x = 1$$

$$x = \frac{1}{2}$$

Turn in this week's classwork if you haven't already:

Warm up on top

Green 1- #78/79

Pink (revised 1.2.2)

1- #98 ---> 100, 102

(own graph paper)

Purple 1- #111

HW: Show a clear process that supports correct solutions. Solutions are points of intersection, ordered pairs!

Checkpoint 2B, Solving Systems  
page CP8 (in the back of your book)  
# 1 - 10

## Test Chapter 1

You may use your math spiral,  
a scientific calculator and  
a straight edge.

You're ready! 😊